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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AILES, BENJAMIN A

ART UNIT PAPER NUMBER

2142

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/010,225	Applicant(s) YARED ET AL.	
	Examiner Benjamin A. Ailes	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-24 is/are pending in the application. ✓
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Amendments filed 09 February 2006.
2. Claims 1-4, and 6-24 remain pending.

Response to Arguments

3. Applicant's arguments filed 09 February 2006 have been fully considered but they are not persuasive. Applicant argues that Acker does not teach or suggest every aspect of amended independent claim 1. Based on broadest reasonable interpretation, the examiner respectfully disagrees. Independent claim 1 contains 3 limitations. (a) receiving a variable usage specification wherein the variable usage specification comprises a usage specifying an attribute of an object in the object graph; (b) creating a transient object graph representation comprising an internal representation of the object, wherein the internal representation of the object only comprises the attribute specified in the variable usage specification; and (c) packaging the transient object graph representation, wherein the object graph has been previously created. The first limitation, (a) is taught by Acker in figure 4 and column 5, lines 47-52. Acker utilizes an abstract graph which is deemed functionally equivalent to applicants' claimed use of a general object graph. The abstract graph taught by Acker contains syntax units which correspond to the interface definition which are deemed functionally equivalent to the attributes necessary for creating of the transient object graph. The second limitation (b) is taught by Acker in figure 4 and column 5, lines 58-64 wherein Acker utilizes an emitter which creates a second object graph based on the syntactical units provided by limitation (a). The third limitation (c) is taught by Acker in figure 4 and column 5, lines

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58-65 wherein the transient object graph is packaged by generation of the transient object graph by the emitter and the object graph has been previously created before the second object graph is created (see figure 4, abstract graph). Applicant further stresses that independent claim 1 is directed to *trimming* an already existing object graph using the VUS and that Acker is completely silent with respect to trimming a *preexisting* object graph. Examiner does not agree in view of figure 4 and for what is recited in column 5 lines 58-64 wherein it is recited by Acker wherein Acker recites the generation of portions of an entry object graph containing only necessary portions and not an entire or full object graph in order to produce only a small portion of the object graph which is deemed functionally equivalent to a *trimmed* object graph. Acker's object graph creation is deemed useful and well known and is advantageous for producing small portions of object graphs which contain only attributes that are absolutely needed and saves significant space and time. Therefore, the claims as written are not deemed patentable over the prior art of record.

Claim Objections

4. Claims 1-16 and 24 are objected based on the following rationale: The claims recite the "packaging [of] an object graph", however the later limitations recite the packaging of a transient object graph which is based upon the object graph. It is unclear if the original object graph is being packaged or is already packaged. The amendments to the claims by the applicant, specifically the addition of the limitation "wherein the object graph has been previously created" does not clear up the confusion based on how the claims are currently written. Clarification and/or correction to the

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claims is required so that one of ordinary skill in the art can easily and/or reasonably understand what it is actually being claimed by the applicant.

Claim Rejections - 35 USC § 102

5.. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, 6-8, 12, 15-20, and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Acker et al. (U.S. 6,141,792), hereinafter referred to as Acker.

7. Regarding claims 1, 15, 16, 17, 18, 21, 22, 23, and 24, Acker discloses a method for packaging an object graph, comprising:

receiving a variable usage specification wherein the variable usage specification comprises a usage specifying an attribute of an object in the object graph (col. 5, lines 47-52, Acker discloses the use of an abstract graph which represents syntactic units of the interface definition.).

creating a transient object graph representation comprising an internal representation of the object, wherein the internal representation of the object only comprises the attribute specified in the variable usage specification (col. 5, lines 58-64, Acker discloses the use of an emitter which creates a second object graph which only includes portions of the object graph that are used and required.); and

packaging the transient object graph representation,
wherein the object graph has been previously created (figure 4 and col. 5, ll. 58-64).

8. Regarding claim 2, Acker discloses the method wherein creating the transient object graph representation comprises identifying the object in the object graph whose attribute is specified in the variable usage specification (col. 5, lines 58-64, Acker discloses generating only the portions of the object graph needed, the portions being the objects which inherently associated attributes.).

9. Regarding claim 3, Acker discloses the method wherein identifying the object in the object graph comprises using a root object in the object graph (col. 13, lines 18-20, Acker discloses the use of a root object for identifying purposes).

10. Regarding claim 4, Acker discloses the method wherein identifying the object in the object graph further comprises using the root object to find a path to the object whose attribute is specified in the variable usage specification (col. 13, lines 18-24, Acker discloses the use of a root object to identify the route to a target module (target object)).

11. Regarding claim 6, Acker discloses the method wherein creating the transient object graph further comprises storing the internal representation of the object as a node of the transient object graph (fig. 4, Acker discloses the object graph builder creating the object graph containing only objects/attributes of interest which contains nodes (see 120)).

12. Regarding claims 7 and 19, Acker discloses the method further comprising:

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converting the transient object graph representation into a form suitable for transport over a network link (col. 3, lines 24-29, Acker discloses the ability for the use of the invention in a distributed network environment which would require the ability to convert the graph into a form suitable for transport over a network link.).

13. Regarding claims 8 and 20, Acker discloses the method further comprising:

converting the transient object graph representation into a form suitable for storage on a storage medium (col. 3, lines 24-29, Acker discloses the ability for the use of the invention in a computer environment, which would require the ability to convert the graph into a form suitable for storage on a storage medium.).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker as applied above, in view of what was well known at the time of invention, being Applicant admitted prior art (AAPA), incorporation of such functional subject matter being obvious to one of ordinary skill in the art at the time the invention was made.

17. Regarding claim 9, Acker disclosed the invention substantially as claimed as detailed above. However, Acker did not expressly disclose the method of converting the object graph into a byte stream. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to use the well-known function of converting computer elements, in this case an object graph, into a byte stream in order to be able to properly transmit object graphs between a client and a server pair. The operation of transmitting objects between a client and a server is considered well known in the networking arts as explained by Acker (see col. 3, lines 24-29) and the conversion to a byte stream in the present application, Page 2, paragraph 0004.

18. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker in view of Freyburger (U.S. 6,405,368), hereinafter referred to as Freyburger.

19. Regarding claim 10, Acker disclosed the invention substantially as claimed as detailed above. Acker does disclose the transmission of the object graph from server to client but does not expressly disclose the conversion of the graph into a hash table. However, in related art in the computer networking arts, Freyburger discloses a method

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of utilizing a hash table for storage (see Freyburger, col. 4, line 66 – col. 5, line 17).

One of ordinary skill in the art at the time of the applicant's invention would have been motivated to utilize a hash table in order to properly maintain, store, and keep track of object graphs accurately.

20. Claim 11 is rejected under the same rationale and motivation as stated in claim 10, the use of a hash table, and in claim 9, the use of conversion to a byte stream.

21. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker in view of Swaminathan et al. (U.S. 6,092,120), hereinafter referred to as Swaminathan.

22. Regarding claim 13, Acker disclosed the invention substantially as claimed as detailed above. Acker does disclose the transmission of the object graph from server to client but does not expressly disclose the compression of the object graph. However, in related prior art, Swaminathan discloses a method of compressing data before transmission (see Swaminathan, col. 4, lines 45-49). One of ordinary skill in the art at the time of the applicant's invention would have recognized the advantage of the object graph creation and transmittal between server and client method as disclosed by Acker utilizing data compression techniques disclosed by Swaminathan. One would have been motivated to make such a combination in order to increase the efficiency and decrease the amount of time it takes to transmit a file from a client to a server and vice versa (see Swaminathan, col. 5, lines 45-59).

23. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker in view of Nakata et al. (U.S. 5,854,841), hereinafter referred to as Nakata.

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24. Regarding claim 14, Acker disclosed the invention substantially as claimed as detailed above. Acker does disclose the transmission of the object graph from server to client but does not expressly disclose the step of encryption of the object graph. However, in related prior art, Nakata discloses a method encrypting data before transmission between a server and a client (see Abstract). One of ordinary skill in the art at the time of the applicant's invention would have recognized the advantage of the object graph creation and transmittal between server and client method as disclosed by Acker utilizing data encryption techniques disclosed by Nakata. One would have been motivated to make such a combination in order to increase security and protect sensitive material from being illegally used (see Nakata, col. 1, lines 11-27).


Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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PRIMARY EXAMINER

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